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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/697,695

10/31/2003

Cavelle P. Benjamin IV

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7590

02/11/2005

NIXON & VANDERHYE P.C./G.E.

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EXAMINER

WEST, JEFFREY R

ART UNIT

PAPER NUMBER

2857

DATE MAILED: 02/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/697,695

Applicant(s)

BENJAMIN ET AL.

Examiner

Jeffrey R. West

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/31/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because of the following informalities:

In Figure 1, reference numbers "23" and "24" both appear to be labeling the "Analysis Platform". Since the specification indicates that "24" refers to a "CDE software" (page 9, paragraph 0018), it is suggested that Figure 1 be amended to include a component inside the "Analysis Platform" illustrating the "CDE software" and labeled "24". A similar change should be made to Figure 1 with respect to the "CCE software" referred to by reference number "34".

2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not

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accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The abstract of the disclosure is objected to because its length exceeds the 150-word limit. Correction is required. See MPEP § 608.01(b).

4. The disclosure is objected to because of the following informalities:

On page 8, paragraph 0015, line 6, the "metadata" is incorrectly labeled "32" instead of "27" as presented on page 8, paragraph 0015, line 2 and in Figure 1.

On page 13, paragraph 0026, lines 13-14, the "central management system" is incorrectly labeled "26" instead of "25" as presented on page 14, paragraph 28, lines 3-4 and in Figure 1.

Appropriate correction is required.

Claim Objections

5. Claims 1, 4, 5, 8, 11, 13, 15, 18, 24, 27, 29, 31, 34, 39, 40, and 42-44 are objected to because of the following informalities:

In claim 1, line 11, to avoid problems of antecedent basis, "the monitor" should be ---the on-site monitor---.

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In claim 1, line 13, to avoid problems of antecedent basis, "the operation" should be ---operation---.

In claim 4, line 4, to avoid problems of antecedent basis, "the monitor" should be ---the on-site monitor---.

In claim 5, line 1, to avoid problems of antecedent basis, "the monitor" should be ---the on-site monitor---.

In claim 8, line 2, to avoid problems of antecedent basis, "the state" should be ---a state---.

In claim 11, line 2, to avoid problems of antecedent basis, "the likely" should be ---a likely---.

In claim 11, line 4, to avoid problems of antecedent basis, "the consequences" should be ---consequences---.

In claim 13, lines 3-4, to avoid problems of antecedent basis, "the identification" should be ---identification---.

In claim 15, lines 3-4, to avoid problems of antecedent basis, "the manufacturer's" should be ---manufacturer's---.

In claim 18, line 11, to avoid problems of antecedent basis, "the equipment" should be ---the power generation equipment---.

In claim 18, line 14, to avoid problems of antecedent basis, "the operation" should be ---operation---.

In claim 18, lines 27-28, to avoid problems of antecedent basis, "the on-site monitor" should be ---the monitor---.

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In claim 18, line 29, to avoid problems of antecedent basis, "the likely" should be ---a likely---.

In claim 18, lines 31-32, to avoid problems of antecedent basis, "the consequences" should be ---consequences---.

In claim 24, line 2, to avoid problems of antecedent basis, "the state" should be ---a state---.

In claim 27, line 1, to avoid problems of antecedent basis, "the coaching" should be ---the plurality of coaching---.

In claim 27, lines 2-3, to avoid problems of antecedent basis, "the likely" should be ---a likely---.

In claim 27, line 4, to avoid problems of antecedent basis, "the consequences" should be ---consequences---.

In claim 29, lines 2-5, to avoid problems of antecedent basis, "the times that operating data is collected and recorded and the identification of the particular sensors collecting the data" should be ---times that operating data is collected and recorded and identification of particular sensors collecting the operating data---.

In claim 31, line 4, to avoid problems of antecedent basis, "the manufacturer's" should be ---a manufacturer's---.

In claim 34, line 9, to avoid problems of antecedent basis, "the equipment" should be ---the power generation equipment---.

In claim 34, line 17, to avoid problems of antecedent basis, "the operation" should be ---operation---.

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In claim 34, lines 5 and 13, to avoid problems in references made in claims 35-38, "first means" should be ---first analyzing means--- and "second means" should be ---second analyzing means---.

In claim 39, line 3, to avoid problems of antecedent basis, "the likely" should be ---a likely---.

In claim 39, line 5, to avoid problems of antecedent basis, "the consequences" should be ---consequences---.

In claim 40, lines 11-12, to avoid problems of antecedent basis, "the equipment" should be ---the power generation equipment---.

In claim 40, line 15, to avoid problems of antecedent basis, "the operation" should be ---operation---.

In claim 42, line 3, to avoid problems of antecedent basis, "the likely" should be ---a likely---.

In claim 42, line 5, to avoid problems of antecedent basis, "the consequences" should be ---consequences---.

In claim 43, line 3, to avoid problems of antecedent basis, "the site" should be ---the location---.

In claim 43, line 4, to avoid problems of antecedent basis, "the potential" should be ---potential---.

In claim 43, line 5, to avoid problems of antecedent basis, "the consequences" should be ---consequences---.

In claim 44, line 3, to avoid problems of antecedent basis, "the site" should be ---the location---.

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In claim 44, line 6, to avoid problems of antecedent basis, "the potential" should be ---potential---.

In claim 44, line 7, to avoid problems of antecedent basis, "the consequences" should be ---consequences---.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 11-15, 17, 26, 28-31, 34, 35, and 38-44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 is considered to be vague and indefinite because it recites, "wherein the coaching tools use the historical data" while there is no previous mention of any "coaching tools". Therefore, it is unclear to one having ordinary skill in the art as to what "wherein the coaching tools use historical data" is trying to further limit.

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, because it includes a limitation for "the particular units" while there is no previous mention of any "particular units". Therefore, it is unclear to one having ordinary skill in the art as to what "the particular units" refers.

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Claim 17 is considered to be vague and indefinite because it recites, "wherein the at least one coaching tool" while there is no previous mention of any "coaching tool". Therefore, it is unclear to one having ordinary skill in the art as to what "wherein the at least one coaching tool" is trying to further limit.

Claim 26 is rejected under 35 U.S.C. 112, second paragraph, because it recites "the data collected by the collection and transfer system" while there is no previous mention of any "collection and transfer system". Therefore, it is unclear to one having ordinary skill in the art as to what "the collection and transfer system" refers as well as to what "data" is being referenced.

Claim 28 is rejected under 35 U.S.C. 112, second paragraph, because it includes a limitation for "the particular units" while there is no previous mention of any "particular units". Therefore, it is unclear to one having ordinary skill in the art as to what "the particular units" refers.

Claim 34 is considered to be vague and indefinite for reciting "using the operating data, event data and historical data" because there is no previous data that is defined as event data. A determination is made whether "any of the predefined events occurred during operation of the equipment" however, it is unclear as to what specific data can be defined as "event data".

Claim 39 is considered to be vague and indefinite because it recites, "wherein the coaching tools use the operating information" while there is no previous mention of any "coaching tools". Therefore, it is unclear to one having ordinary skill in the art as to what "wherein the coaching tools" is trying to further limit. Further, the cited limitation refers to "the operating

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information” while parent claim 34 defines “operating data” and not “operating information”. Therefore, it is unclear to one having ordinary skill in the art whether “the operating information” is the same as the “operating data” or if it refers to a different quantity of data.

Claim 40 is considered to be vague and indefinite for reciting “using the operating data, event data and historical data” because there is no previous data that is defined as event data. A determination is made whether “any of the predefined events occurred during operation of the equipment” however, it is unclear as to what specific data can be defined as “event data”.

Claim 42 is rejected under 35 U.S.C. 112, second paragraph, because it further limits “the step of using the coaching tools” to “using the operating information” while there is no previous step presented. Therefore, it is unclear to one having ordinary skill in the art as to what step is being referred. Further, the cited limitation refers to “the operating information” while parent claim 40 defines “operating data” and not “operating information”. Therefore, it is unclear to one having ordinary skill in the art whether “the operating information” is the same as the “operating data” or if it refers to a different quantity of data.

Claim 44 is considered to be vague and indefinite because it recites “wherein the step of analyzing the operating data comprises . . . analyzing the operating data located at a second site at which the power generation equipment is not located”. The “step of analyzing the operating data”, however, is first presented in parent claim 40 and specifies “analyzing at the

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location where the power generation equipment is located". Therefore, it is unclear how the step of "analyzing at the location where the power generation equipment is located" can correctly be limited by a step of "analyzing the operating data located at a second site at which the power generation equipment is not located."

Claims 13-15, 29-31, 35, 38, 41, and 43 are rejected under 35 U.S.C. 112, second paragraph, because they incorporate the lack of clarity present in their respective parent claims.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-7, 9, 10, 12-14, 16, 17, 34-38, 40, and 41, as may best be understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,553,336 to Johnson et al. in view of U.S. Patent Application Publication No. 2001/0053940 to Horn et al.

Johnson discloses a system for detecting predefined events occurring in a plurality of systems and types of equipment and for diagnosing and responding to the predefined events (column 3, line 59 to column 4, line 6), the system comprising an on-site monitor for analyzing operating data

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collected from the equipment and for determining if any of the predefined events occurred during operation of the equipment (column 13, line 50 to column 14, line 1), a plurality of sensors for collecting the operating data from the equipment (column 4, lines 14-17) and for transferring the operating data to the monitor (column 7, lines 6-9), a remote management system for storing and retrieving historical data (i.e. trends) pertaining to the operation of the equipment and to the occurrence of the predefined events in the equipment and for storing and analyzing the operating data collected from the equipment and the event determination (column 15, lines 54-61), and at least one diagnostic tool for using the operating data, event determination and historical data to decide how to respond to the occurrence of any predefined events in the equipment (column 15, lines 61-66 and column 16, lines 11-13).

With respect to claim 2, Johnson discloses that the plurality of sensors are selected from the group consisting of temperature, pressure and flow sensors (column 19, line 63).

With respect to claim 3, Johnson discloses a communication device for transferring to the remote management system the operating data and event determinations from the on-site monitor (column 13, lines 13-16).

With respect to claims 4 and 35, Johnson discloses an analysis platform for analyzing whether any predefined events have occurred, the analysis platform including a first program resident in the monitor (column 12, lines 66-67) and a second program resident in the remote management system (column 16, lines 12-13).

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With respect to claims 5 and 36, Johnson discloses that the monitor further comprises a first data storage device which contains the operating data collected by the plurality of sensors (column 14, lines 18-22).

With respect to claims 6 and 37, Johnson discloses that the remote management system further comprises a second data storage device which contains the historical data pertaining to the operation of the equipment, and the event determinations and the operating data collected by the plurality of sensors (column 15, lines 54-55 and column 16, line 13).

With respect to claim 7, Johnson discloses that the first program is a continuous diagnostic engine analysis software (column 15, lines 14-16) and the second program is a central calculating engine analysis software (column 16, lines 44-46).

With respect to claim 9, Johnson discloses that the continuous diagnostic engine analysis software analyzes the operating data collected by the plurality of sensors using standard algorithms and complex information and generates an alarm when it detects the occurrence of any predefined events (column 13, line 58 to column 14, line 1).

With respect to claims 10, 38, and 41, Johnson discloses that the analysis platform uses procedural and behavioral algorithms to provide information about the operation of the equipment (column 15, lines 54-66).

With respect to claims 12-14, Johnson discloses that the on-site monitor and remote management systems include sensor metadata that is information about how and when operating data for the power generation equipment is

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collected by the plurality of sensors and the particular units used to measure the collected operating data, specifically including timestamps relating to the times that operating data is collected and recorded and the identification of the particular sensors collecting the data and sensor alias mappings for identifying the sensors corresponding to a customer site where the equipment is located (column 14, lines 37-39, column 15, lines 37-38, and column 16, line 62 to column 17, line 1).

With respect to claim 16, Johnson discloses that the on-site monitor and remote management system are each a computer and further that the monitor is a desktop computer (column 12, lines 63-67) and the management system is a server computer (column 16, lines 25-31).

With respect to claim 17, Johnson discloses using a coaching tool in the form of previously obtained/historical operational data to determine the occurrence of an event (column 15, lines 54-59 and column 21, lines 39-42).

With respect to claim 18, Johnson discloses that the plurality of sensors are located at the customer location (column 6, line 54 to column 7, line 5) and the management system is located at a location different from the customer location (column 13, lines 13-16 and Figure 2).

With respect to claim 20, Johnson discloses system controls for controlling the operation of the equipment and for transferring the operating data to the monitor that controls the equipment through actuators (column 4, lines 14-17 and column 15, lines 61-64).

As noted above, the invention of Johnson teaches many of the features of the claimed invention, and while Johnson does disclose obtaining operational data of a plurality of types of equipment including power quality data (column 26, lines 61-63) as well as compares the operational data with historical data to determine a trend in the operational data (column 15, lines 54-59), Johnson does not specify that the method be used in monitoring power generation equipment for comparison with historical fleet power generation data.

Horn discloses a method and system for assessing plant parameters and performance over a global network including means of obtaining operating data of power generation equipment (0002-0004 and 0034) for comparison with historical fleet power generation data (0034).

It would have been obvious to one having ordinary skill in the art to modify the invention of Johnson to specify that the method be used in monitoring power generation equipment for comparison with historical fleet power generation data, as taught by Horn, because the combination would have increased the application of Johnson by providing application over a wider variety of environments by including power generation equipment and, as suggested by Horn, the combination would have improved the diagnostics a current piece of equipment by using actual historical data of similar equipment thereby allowing improvement in assessments and predicting trends (0034).

Further, the limitation requiring the monitored equipment to be power generation equipment is considered to be an intended use. It has been held that a recitation of the intended use of the claimed invention must result in a

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structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963). In the instant case, since the structure of Johnson is capable of performing remote monitoring and diagnostics on any of a plurality of devices including power generation equipment, Johnson meets the claimed limitation.

10. Claims 8 and 15, as may best be understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. in view of Horn and further in view of U.S. Patent No. 6,041,288 to Ruffolo et al.

As noted above, the invention of Johnson and Horn teaches many of the features of the claimed invention and while the invention of Johnson and Horn does disclose comparing operational/sensor data with historical fleet operational data for power generation equipment, the combination does not specifically disclose comparing sensor operating data with equipment operating data provided by manufacturers of the power generation equipment to determine whether any of sensor data exceeds the manufacturer's operating limits and/or is within the manufacturer's range for the equipment.

Ruffolo teaches a method and apparatus for evaluating AC power distribution equipment (column 1, lines 6-10) including means for determining equipment operational data (column 2, lines 5-11) and comparing the

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operating data with equipment operating data provided by manufactures of the equipment to determine whether any sensor data exceeds the manufacturer's operating limits and/or is within the manufacturer's range for the equipment (column 2, lines 11-18). Ruffolo also teaches issuing an alarm if the current operational data is outside the manufacturer's range (column 2, lines 18-24).

It would have been obvious to one having ordinary skill in the art to modify the invention of Johnson and Horn to specifically include comparing sensor operating data with equipment operating data provided by manufacturers of the power generation equipment to determine whether any of sensor data exceeds the manufacturer's operating limits and/or is within the manufacturer's range for the equipment, as taught by Ruffolo, because, as suggested by Ruffolo, the combination would have improved the analysis of the operating data by comparing the operational data to data set by the manufactures of the equipment thereby insuring that the limits of the data are certain to be the correct limits specific to the device being diagnosed (column 1, lines 49-57 and column 2, lines 11-18).

11. Claims 11, 18-23, 25-30, 32, 33, 39, and 42-44, as may best be understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. in view of Horn and further in view of U.S. Patent No. 5,963,884 to Billington et al.

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As noted above, the invention of Johnson and Horn teaches many of the features of the claimed invention and while the invention of Johnson and Horn does teach the implementation of coaching tools that use historical data to determine an event and/or predict an event occurrence (Johnson, column 23, lines 16-19), the combination does not specifically determine the likely cause of the event and an action plan for responding to the event or distinguish between events that require an expedited timeframe to prevent further consequences from the occurrence of the events and events that do not need to be identified in an expedited timeframe.

Billington teaches a predictive maintenance system including a plurality of remote data acquisition nodes connected to a central control computer for performing the control and monitoring activities of a plurality of devices (column 3, lines 15-45) as well as a display for allowing the user to view monitoring results (column 3, line 65 to column 4, line 2). Billington also teaches user controlled commands for collecting, viewing, statistical trending, and analyzing obtained data (column 6, lines 43-47) in order to distinguish between an event that requires immediate/expedite attention and an event that does not require such immediate/expedite attention (column 7, lines 37-43). Billington also teaches that the monitoring application determines a likely cause of an event and an action plan for responding to the event (column 7, lines 43-47).

It would have been obvious to one having ordinary skill in the art to modify the invention of Johnson and Horn to specifically determine the likely cause of

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the event and an action plan for responding to the event and distinguish between events that require an expedited timeframe to prevent further consequences from the occurrence of the events and events that do not need to be identified in an expedited timeframe, as taught by Billington, because, as suggested by Billington, the combination would have reduced the possibility of damage to the equipment being monitored and thereby preventing its costly repair by indicating problem severity and presenting instructions to allow both skilled and unskilled workers to correctly maintain the device (column 7, lines 37-52 and column 11, line 63 to column 12, line 23).

12. Claims 24 and 31, as may best be understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. in view of Horn and Billington and further in view of U.S. Patent No. 6,041,288 to Ruffolo et al.

As noted above, Johnson in combination with Horn and Billington teaches many of the features of the claimed invention and while the invention of Johnson, Horn, and Billington does disclose comparing operational/sensor data with historical fleet operational data for power generation equipment, the combination does not specifically disclose comparing sensor operating data with equipment operating data provided by manufacturers of the power generation equipment to determine whether any of sensor data exceeds the manufacturer's operating limits and/or is within the manufacturer's range for the equipment.

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Ruffolo teaches a method and apparatus for evaluating AC power distribution equipment (column 1, lines 6-10) including means for determining equipment operational data (column 2, lines 5-11) and comparing the operating data with equipment operating data provided by manufactures of the equipment to determine whether any sensor data exceeds the manufacturer's operating limits and/or is within the manufacturer's range for the equipment (column 2, lines 11-18). Ruffolo also teaches issuing an alarm if the current operational data is outside the manufacturer's range (column 2, lines 18-24).

It would have been obvious to one having ordinary skill in the art to modify the invention of Johnson, Horn, and Billington to specifically include comparing sensor operating data with equipment operating data provided by manufacturers of the power generation equipment to determine whether any of sensor data exceeds the manufacturer's operating limits and/or is within the manufacturer's range for the equipment, as taught by Ruffolo, because, as suggested by Ruffolo, the combination would have improved the analysis of the operating data by comparing the operating data to data set by the manufactures of the equipment thereby insuring that the limits of the data are certain to be the correct limits specific to the device being diagnosed (column 1, lines 49-57 and column 2, lines 11-18).

Conclusion

13. The prior art made of record and not relied upon is considered pertinent

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to Applicant's disclosure.

U.S. Patent No. 6,735,549 to Ridolfo teaches a predictive maintenance display system that compares operating data to manufacturer's recommendations.

U.S. Patent No. 6,694,285 to Choe et al. teaches a method and apparatus for monitoring rotation machinery.

U.S. Patent No. 6,438,484 to Andrew et al. teaches a method and apparatus for detecting and compensating for compressor surge in a gas turbine using remote monitoring and diagnostics using historical fleet data.

U.S. Patent Application Publication No. 2002/0161555 to Deb et al. teaches a remote diagnosis server.

U.S. Patent Application Publication No. 2003/0028268 to Eryurek et al. teaches data sharing in a process plant.

U.S. Patent No. 6,816,815 to Takayama teaches a preventive maintenance system of an industrial machine.

U.S. Patent No. 6,208,953 to Milek et al. teaches a method for monitoring plants with mechanical components.

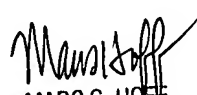
14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. West whose telephone number is (571)272-2226. The examiner can normally be reached on Monday through Friday, 8:00-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571)272-2216. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jrw
February 2, 2005


MARC S. HOFF
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800